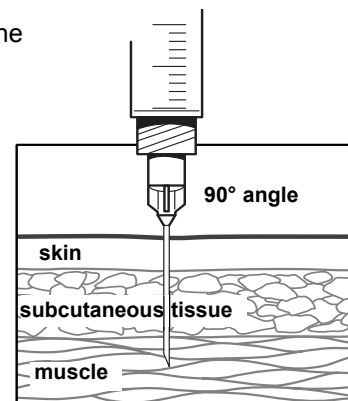


How to Administer Intramuscular (IM) Injections


Administer these vaccines via intramuscular (IM) route: Diphtheria-tetanus (DT, Td) with pertussis (DTaP, Tdap); Hib; hepatitis A; hepatitis B; human papillomavirus (HPV); inactivated influenza; meningococcal conjugate (MCV4); and pneumococcal conjugate (PCV). Administer inactivated polio (IPV) and pneumococcal polysaccharide (PPV) either IM or SC.

Patient age	Site	Needle size	Needle insertion
Birth to 12 mos.	Anterolateral thigh muscle	5/8" ^{**} needle (newborns only), 1" (older infants), 22–25 gauge	Use a needle long enough to reach deep into the muscle. Insert needle at a 90° angle to the skin with a quick thrust.
12 mos. to 10 yrs.	Thickest portion of deltoid muscle—above level of axilla and below acromion (if adequate muscle mass). The anterolateral thigh may also be used.	5/8" ^{**†} to 1" needle, 22–25 gauge	(Before administering an injection, it is not necessary to aspirate, i.e., to pull back on the syringe plunger after needle insertion. [†]) Multiple injections given in the same extremity should be separated by a minimum of 1", if possible.
Children and adults 11 yrs. and older	Thickest portion of deltoid muscle—above level of axilla and below acromion	1"–1½" ^{**†} needle, 22–25 gauge	



*A 5/8" needle can be used if the skin is stretched tight and the subcutaneous tissue is not bunched.
[†]A 5/8" needle may be used in the deltoid muscle in children ages 12 mos. or older and in adults weighing less than 130 lbs.

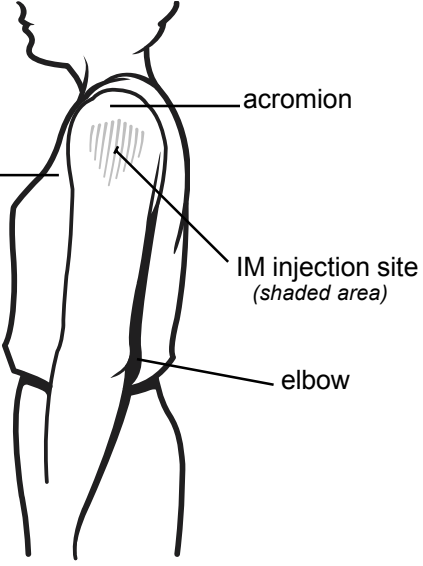
[†]CDC. "ACIP General Recommendations on Immunization" at www.cdc.gov/nip/publications/ACIP-list.htm.



IM site for infants

IM injection site area (shaded area)

Insert needle at a 90° angle into the anterolateral thigh muscle.



IM site for children (after the 1st birthday) and adults

level of axilla

acromion

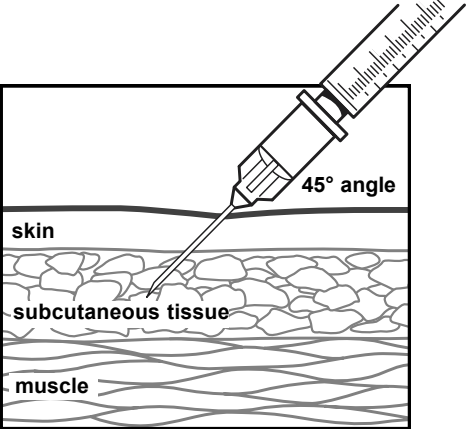
IM injection site (shaded area)


elbow

Insert needle at a 90° angle into thickest portion of deltoid muscle—above the level of the axilla and below the acromion.

How to Administer Subcutaneous (SC) Injections

Administer these vaccines via subcutaneous (SC) route: MMR, varicella, meningococcal polysaccharide (MPSV), and zoster (shingles). Administer inactivated polio (IPV) and pneumococcal polysaccharide (PPV) vaccines either SC or IM.

Patient age	Site	Needle size	Needle insertion
Birth to 12 mos.	Fatty tissue over the anterolateral thigh	5/8" needle, 23–25 gauge	<p>Pinch up on SC tissue to prevent injection into muscle.</p> <p>Insert needle at 45° angle to the skin.</p> <p>(Before administering an injection, it is not necessary to aspirate, i.e., to pull back on the syringe plunger after needle insertion.*)</p> <p>Multiple injections given in the same extremity should be separated by a minimum of 1".</p> <p>*CDC. "ACIP General Recommendations on Immunization" at www.cdc.gov/nip/publications/ACIP-list.htm.</p> 
12 mos. and older	Fatty tissue over the triceps	5/8" needle, 23–25 gauge	

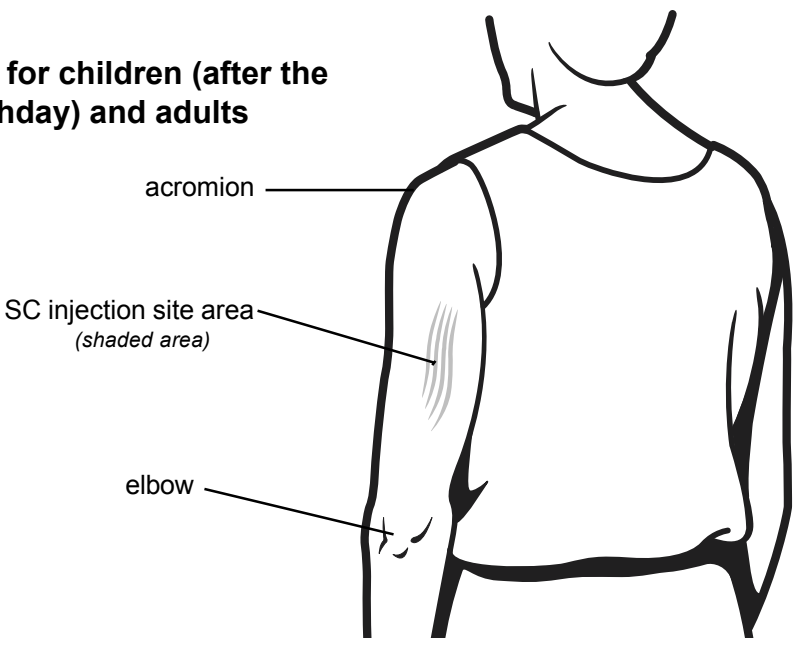


SC site for infants

SC injection site area
(shaded area)

Insert needle at a 45° angle into fatty tissue of the anterolateral thigh. Make sure you pinch up on SC tissue to prevent injection into the muscle.

SC site for children (after the 1st birthday) and adults



Insert needle at a 45° angle into the fatty tissue over the triceps muscle. Make sure you pinch up on the SC tissue to prevent injection into the muscle.